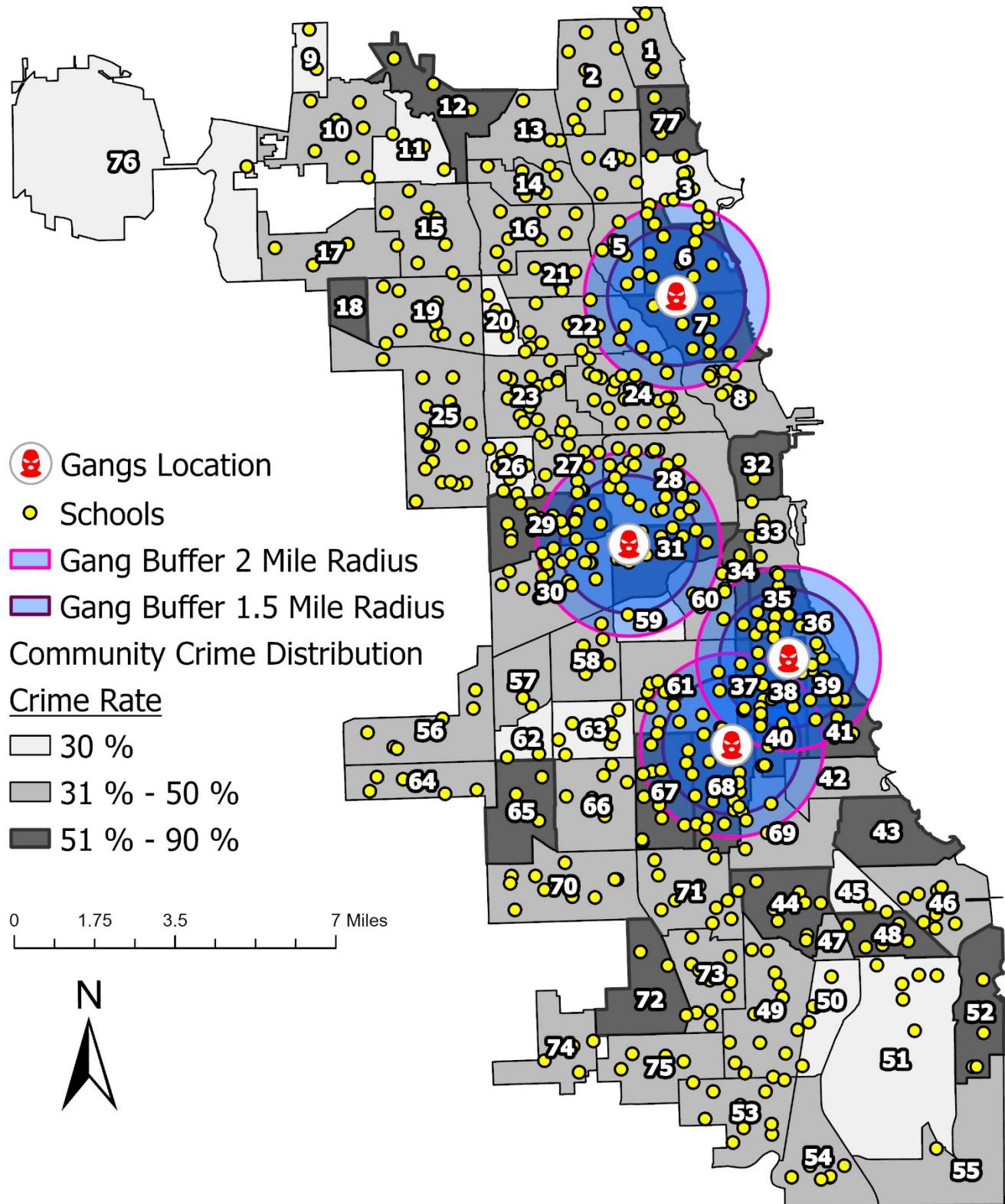


Buffer Analysis

Overlay Map to show the crime rate and school location analysis across Chicago

Shape file: CCA_Crime.shp, **Attribute data:** gang locations; 2 buffers.

Chicago Gangs and Crime Rate Analysis



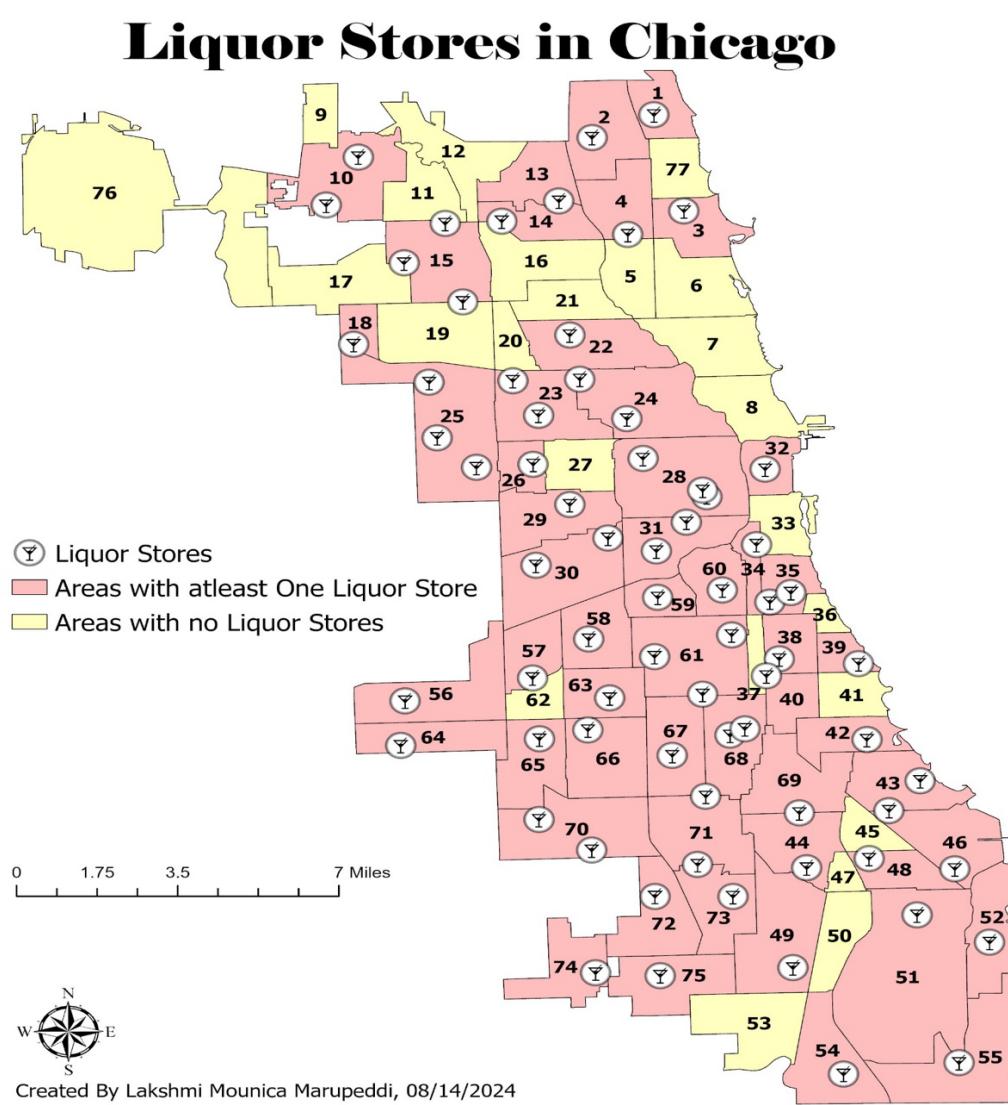
Research Question: What can you infer from this map? Where are the gangs located? Are they closer to schools? Why? What do you think of the crime rate around these gang locations?

Ans:

The presence of gangs seems to be in areas where the crime rate is on the higher side. The schools, though scattered almost evenly across the community areas, a significant number of them came under the purview of gang's location buffer. It can be observed that schools in all the gang locations are densely scattered. The reason behind this could be that students or young individuals are likely to be easy targets for gangs to fulfil various objectives like to commit criminal offenses against or to recruit young kids into gangs or to influence and brainwash.

Looking at the relationship of gang locations and crime rates. Gang location buffers cover almost 70% of the highest crime rate areas in Chicago (51% - 90%). It is apparent that the crime rate is concentrated in places proximate to gang locations because of likelihood of more criminal activity in the surrounding areas.

Spatial Queries (Select by Location): A map to show the CCAboundary.shp, CCA_noLiqStore.shp (new shapefile created) and the LiquorStores.shp. The following questions are answered using spatial queries



Research Questions:

1. How many Public Schools have liquor stores within ½ mile radius?
Ans: There are **219** public schools that have a liquor store in a ½ mile or 0.5 miles radius.

2. How many Public Schools do not have a liquor store within ½ mile radius?
Ans: There are **385** public schools that do not have a liquor store in a ½ mile or 0.5 miles radius.

Attribute Queries (Select by Attribute):

Shape files: CCAboundary.shp, PublicSchools.shp. The following questions are answered using attribute queries

Question-1:

1. How many “Vocational” schools are available?
Ans: There are **7** Vocational school available.

2. How many schools have enrolment greater than 1,000. Pay attention to data type.
Ans: **109** school have 1000+ enrolment numbers.

3. How many schools are “Regular Elementary” and have Percentage of Blacks more than 50%.
Ans: **190** Regular elementary schools have 50% or more blacks

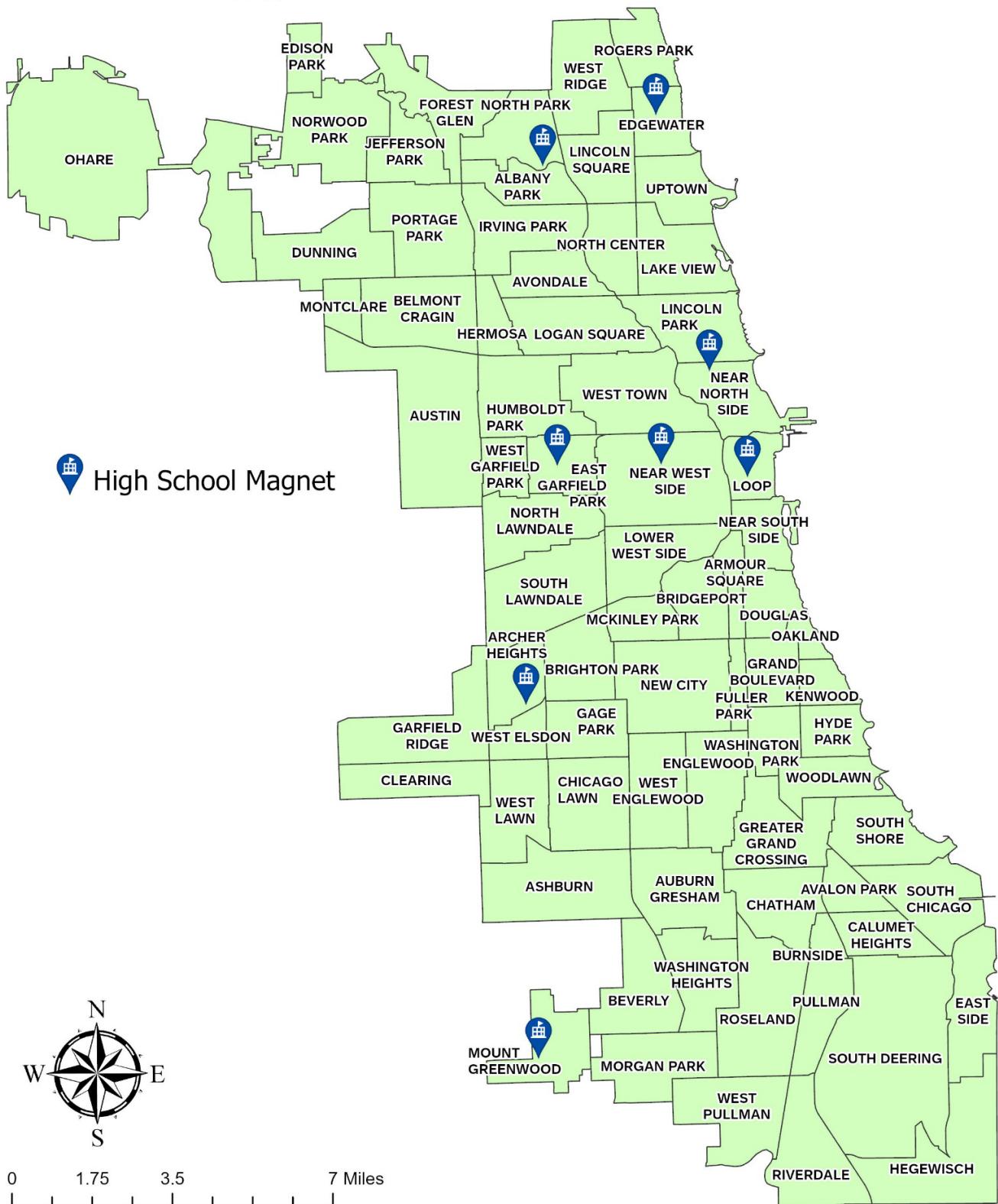
Question-2:

1. Write a query to select all the ‘High schools Magnet’. How many did it select?
Ans: **8** rows are selected.

2. Create a map to show CCA and these schools.
Ans: (**Map attached in the following page**).

3. Which CCAs are these schools located. Name all the CCAs.
 - a. **NEAR NORTH SIDE**
 - b. **LOOP**
 - c. **EAST GARFIELD PARK**
 - d. **EDgewater**
 - e. **NORTH PARK**
 - f. **MOUNT GREENWOOD**
 - g. **NEAR WEST SIDE**
 - h. **ARCHER HEIGHTS**

School Type: HIGH SCHOOL MAGNET



Created By Lakshmi Mounica Marupeddi, 08/14/2024.